

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method comprising,

~~processing having a user's provide a physical sample with genetic information to produce a profile of data representative of the~~ and having said physical sample processed to generate information representative of genetic information data associated within the physical sample;

~~storing providing the profile information in an accessible database format;~~

receiving from the user a set of access rights defining conditions under which third parties ~~users~~ can access the ~~stored~~ information;

receiving a request from a third party to access the ~~stored~~ information to perform a test on the ~~data~~ information;

comparing ~~the a~~ third party ~~user's~~ request with the access rights to confirm that the third party is authorized to access the information profile as requested;

if the third party ~~user~~ is authorized, performing the requested test on the information profile; and

if the third party is not authorized, denying access.

2-8. (Cancelled)

9. (Currently Amended) A method comprising,

receiving over the Internet from a third party user a request to access a stored genetic data profile of a patient to perform a ~~medical~~ test to determine the presence or absence of a gene or genetic variant ~~gene~~ or level of expression of a marker associated with a specified disease;

determining whether the third party user is authorized to access the genetic data profile for the purpose of the ~~requested medical~~ test based on stored access rights provided by the patient;

if the third party user is authorized for access and to perform the test, performing the test on the genetic data profile and reporting the results to the third party user requesting the test information; and

if the third party user is not authorized for access and to perform the test, denying access to the third party user and not performing the test.

10 – 12. (Cancelled)

13. (Currently Amended) The method of claim 9, wherein performing the test includes determining whether a specific genetic variant~~marker~~ is present ~~or not~~.

14. (Currently Amended) The method of claim 9, wherein performing the test includes determining the level of expression of~~whether~~ a specific gene ~~is present~~.

15. (Currently Amended) A system comprising:
a database for storing genetic data of patients;
a testing system for performing ~~medical~~ tests on genetic data~~profiles~~; and
a processing system:
providing to the patient a user interface for the patient to ~~voluntarily~~ enter information to establish access rights, for authorizing access ~~for~~ by third party users for ~~and~~ purposes which the third party users can gain access,
using the access rights to control access to the database when access is requested by third party users,
in response to a request by a third party user for a test on the genetic data~~profile~~,
checking the access rights to determine whether the third party is authorized and whether the test is authorized, and,
if the third party is authorized generating an indication representative of
authorization~~causing the testing system to perform the test, and providing test results to the~~
~~authorized entity.~~

16-20. (Cancelled)

21. (New) The method of claim 1, wherein to generate information representative of genetic data includes generating data representing levels of expression of nucleic acids or proteins from the physical sample.

22. (New) The method of claim 1, wherein to generate information representative of genetic data includes genotyping the physical sample.

23. (New) The method of claim 1, wherein to generate information representative of genetic data includes generating a molecular profile from the physical sample.

24. (New) The method of claim 1, wherein to generate information representative of genetic data includes generating data associated with a genetic marker panel.

25. (New) The method of claim 1, wherein to generate information representative of genetic data includes generating data associated with a disease phenotype.

26. (New) The method of claim 1, wherein providing a physical sample includes providing a sample of cells.

27. (New) The method of claim 1, wherein providing a physical sample includes providing a tissue sample.

28. (New) The method of claim 1, wherein providing a physical sample includes providing a sample of blood and its derivatives.

29. (New) The method of claim 1, wherein receiving a request from a third party to perform a test includes receiving a request to compare the genetic or molecular data against at least one marker associated with a condition.

30. (New) The method of claim 1, wherein receiving a request from a third party to perform a test includes receiving a request to compare the genetic data against at least one allelic variant.

31. (New) The method of claim 1, further including allowing the user to provide information about a patient associated with the physical sample for storing the patient information with data generated from the physical sample.

32. (New) The method of claim 1, further including allowing the third party to request to test a plurality of sets of genetic data against a plurality of different physical samples from the user.

33. (New) The method of claim 32, allowing the third party to test the plurality of genetic data to identify a correlation between a genetic marker and condition of interest to the third party.
34. (New) The method of claim 1, further including providing an indication to a user when a request to access data associated with the user has been denied.
35. (New) The method of claim 34, further including, allowing the user to grant access rights to the denied request.
36. (New) The method of claim 1, wherein performing the requested test includes comparing the stored information to other data associated with a known disease.
37. (New) The method of claim 1, wherein performing the requested test includes identifying in the stored information at least one of a number of genetic or molecular markers associated with certain disease phenotypes.
38. (New) The method of claim 1, further including storing test results in a database.
39. (New) The method of claim 1, wherein the user is selected from the group consisting of a patient, a medical practitioner, and a researcher.
40. (New) The method of claim 1, wherein the third party is selected from the group consisting of a patient, a medical practitioner, and a researcher.
41. (New) The method of claim 1, wherein providing a physical sample includes providing a sample of bodily fluids.
42. (New) The method of claim 1, wherein the conditions include conditions representative of third parties allowed access and uses for which access is allowed.